MA222. Schedule for the Summer 2010 semester.

Lecture	Textbook	Topics
May 20 (R)	2.1-2.2 in [1] 1.1-1.4 in [2]	Introduction to Probability. Sample space, events, probability axioms and properties
May 24 (M)	2.3 in [1] 2.1,2.2 in [2]	Counting principles, combinatorial methods,
May 25 (T)	2.3 in [1] 2.3, 2.4 in [2]	Permutations, combinations.
May 26 (W)	2.4,2.5 in [1] 3.1-3.5 in [2]	Conditional probability, Bayes theorem, Independence
May 27 (R)		Commencement day. No classes.
May 31 (M)		Memorial day Holiday. No classes
Jun 1 (T)	3.1-3.3 in [1] 4.1-4.6 in [2]	Discrete random variables, Distribution functions. Expectation and variance of discrete variables. Standardization.
Jun 2 (W)	3.4-3.6 in [1] 5.1-5.3 in [2]	Special cases of discrete random variables: Bernoulli, Binomial, Geometric, Negative Binomial. The Poisson distribution.
Jun 3 (R)		(cont)
Jun 7 (M)	4.1-4.2 in [1] 6.1-6.3 in [2]	Continuous random variables, PDF, CDF. Functions of random variables. Expectation and variance.
Jun 8 (T)		(cont)
Jun 9 (W)	4.1-4.4 in [1] 7.1-7.5 in [2]	Special cases of continuous random variables: Uniform distribution, normal, exponential. (Gamma and Beta - time permitting)
Jun 10 (R)		Catching up lecture. TEST 1 on Feb 27 to cover material from the first 3 weeks.
Jun 14 (M)	See handouts	Special Lecture: The Poisson process.
Jun 15 (T)		(cont)
Jun 16 (W)	5.1-5.2 in [1] 8.1-8.3 in [2]	Distribution of two random variables. Joint and conditional distributions.
Jun 17 (R)		(cont)
Jun 21 (M)	11.1, 11.4, 11.5 in [2]	Moment Generating Functions. Characteristic Functions. Limit Theorems. Central Limit Theorem.
Jun 22 (T)		(cont)
Jun 23 (W)		(cont)
Jun 24 (R)		Catching up. TEST 2 on April 9 to cover material up to and including week 10
Jun 28 (M)	1.1-1.4 in [1] + lecture notes	STATISTICS: Describing distributions using graphs. Sample. Mean, Variance, Quantiles.
Jun 29 (T)	6.1-6.2 in [1]	Point Estimation. Methods of point estimation.
Jun 30 (W)	7.1-7.3 and 8.1-8.2 in [1]	Confidence Intervals and testing based on a single population sample.
Jul 1 (R)		Review

Jul 5 (M)	Independence Day – No classes
Jul 6 –Jul 9	**Review** and **Final Exam** period for the summer semester
	FINAL EXAM on (?) to cover material from the entire course

References:

[1] Jay L. Devore, "*Probability and Statistics for Engineering and the Sciences*", seventh edition, Duxbury, 2007

 [2] Saeed Ghahramani *"Fundamentals of Probability with Stochastic Processes",* third edition, Prentice Hall, 2004